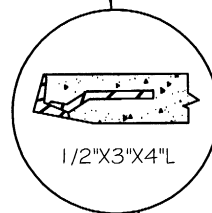


STORM SEWER & DRAINAGE SERIES

C-500 TO C-507



The diagram shows a cross-section and plan view of a concrete beam. The elevation view (top) shows a beam with a 12" lap at each end and a minimum 6" depth. The plan view (bottom) shows a beam with a 4' length or as noted, and 6" end offsets. Reinforcement is labeled as #4 REINF. BARS.

2' MIN.

4' OR AS NOTED ON PLANS

4" MIN.

3" MIN.

COBBLE 10-20# STONE MIN. SET IN CONCRETE (TYPICAL)

12" MIN.

6"

1. FULL DEPTH EXPANSION JOINT EXTENDED THROUGH CURB AND GUTTER (TYP.).
EXPANSION JOINT FILLER SHALL BE 1/2" BITUMINOUS PREFORMED EXPANSION
JOINT FILLER ASTM D-1751. (FULL DEPTH).
2. CONTRACTION JOINT.
3. FOR OPENINGS GREATER THAN 4 FT., SEPARATE CHAMBERS WILL BE
CONSTRUCTED IN 4 FT. INCREMENTS WITH A CONTRACTION
JOINT OVER EACH INTERIOR SUPPORT.
4. STEEL MAT TO BE SUPPORTED ON CHAIRS PRIOR TO CONCRETE PLACEMENT.
MINIMUM CONCRETE COVER TO BE 1" OVER REINFORCING BAR.
5. EXPOSED ANGLE IRON TO BE PAINTED WITH ONE SHOP COAT OF NO. 1-D
PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER MAG STANDARD
SPECS., SECTION 790.
6. 6" - 12" COBBLE TO BE USED FOR SPLASH PAD.
7. TOP SHALL BE MONOLITHIC INCLUDING 4' WINGS.



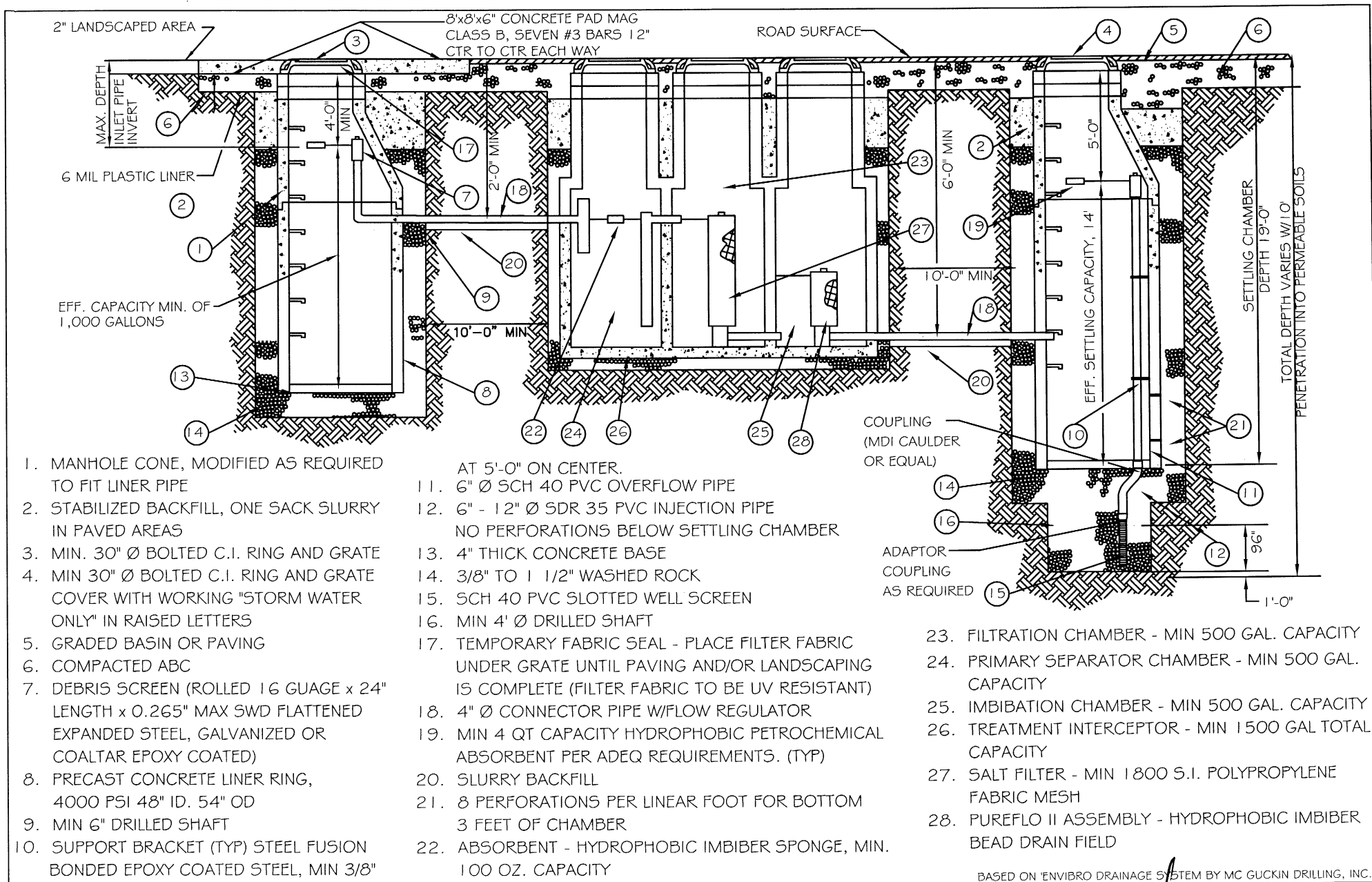
SCUPPER

APPROVED: [Signature]
CITY ENGINEER
DATE: January 11, 2002

DETAIL NO.
C-500
NTS

1. MODIFIED MANHOLE CONE.
2. STABILIZED BACKFILL.
3. MIN. 30" DIA. BOLTED C.I. RING AND GRATE.
- 3A. MIN. 30" DIA. BOLTED C.I. RING AND COVER WITH RAISED LETTERS.
4. GRADED PARKWAY, OR A.C. PAVING.
5. COMPACTED ABC.
6. DEBRIS SCREEN (ROLLED 13 GAUGE X 0.265" MAX. SWD FLATTENED EXPANDED STEEL, GALVANIZED OR COALTAR EPOXY COATED).
7. PRECAST CONCRETE LINER, 4000 PSI 48" ID, 54" OD.
8. MIN. 6' DIA. DRILLED SHAFT.
9. SUPPORT BRACKET (TYP), GALVANIZED STEEL MIN. 3/8".
10. 6" DIA. SCHEDULE 40 PVC OVERFLOW PIPE.
11. 6"-12" DIA. SDR - 35 PVC INJECTION PIPE. NO PERFORATIONS BELOW SETTLING CHAMBER.
12. 4" THICK CONCRETE BASE.
13. 3/8" TO 1-1/2" WASHED ROCK
14. INJECTION SCREEN (ROLLED 10 GAUGE X 0.625 MAX. SWD FLATTENED EXPANDED STEEL, COALTAR EPOXY COATED).
15. MIN. 4' DRILLED SHAFT.
16. FABRIC SEAL - PLACE FILTER FABRIC UNDER GRATE UNTIL PAVING AND/OR LANDSCAPING IS COMPLETE. (FILTER FABRIC TO BE UV RESISTANT)
17. 4" DIA. CONNECTOR PIPE W/ FLOW REGULATOR.
18. MIN. 4 QUART CAPACITY ABSORBENT.
19. SLURRY BACKFILL.
20. 8 PERFORATIONS PER LINEAR FOOT FOR BOTTOM 3 FEET OF CHAMBER.

BASIC DESIGN COURTESY OF MCGUCKIN DRILLING, INC.



BASED ON 'ENVIBRO DRAINAGE SYSTEM BY MC GUCKIN DRILLING, INC.

DETAIL NO.
C-502
NTS



CITY OF
CHANDLER
STANDARD
DETAIL

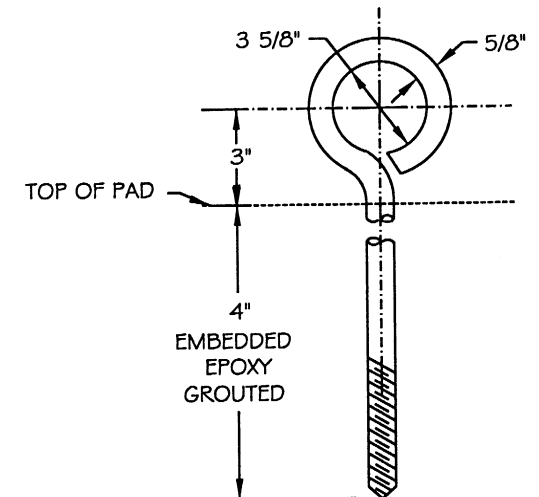
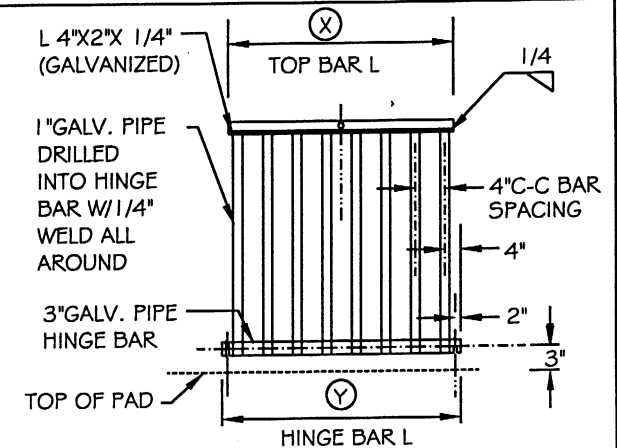
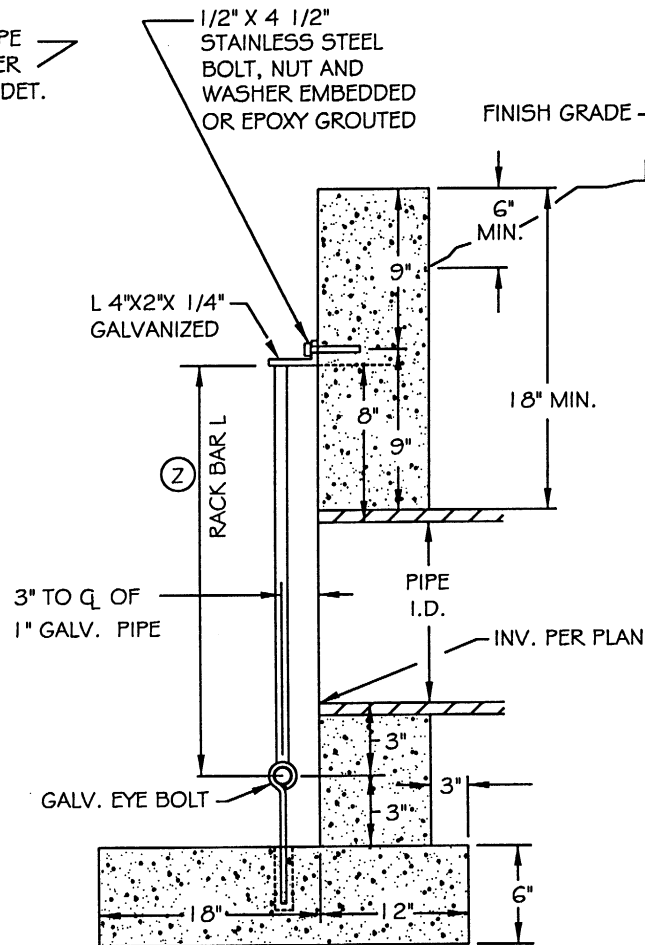
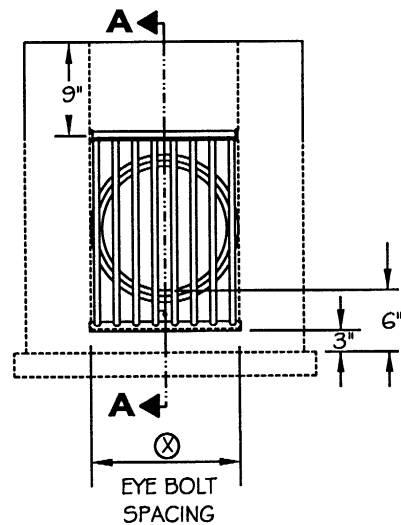
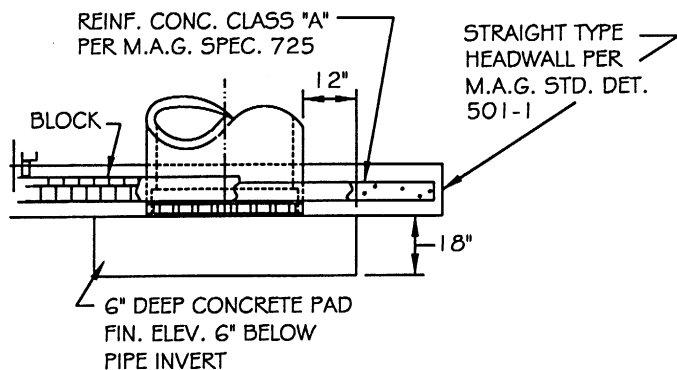
DRY WELL SYSTEM

APPROVED

DATE:

Elizabeth A. Smith
CITY ENGINEER
January 11, 2002

DETAIL NO.
C-502
NTS



TYPICAL DIMENSIONS					
TYPE	PIPE DIA.	NO. OF BARS (I.D./4" + 1")	DIMENSIONS		
			X	Y	Z
A	15"	5	21"	25"	26"
	18"	6	25"	29"	29"

* ROUND UP TO NEXT FULL NUMBER

OTHER BAR SIZES	
DIMENSIONS	
X =	(# BARS X 4") + 1"
Y =	X + 4"
Z =	I.D. + 3" + 8" (UP TO 4' 0")

NOTES:

1. THIS DETAIL IS APPLICABLE AT ALL OPEN ENDS OF PIPE 12" OR MORE IN DIAMETER.
2. COAT ALL WELD AREAS WITH ZINC RICH PAINT.
3. DESIGN ENGINEER TO PROVIDE DETAILS FOR PIPE I.D.'S GREATER THAN 4' IN DIAMETER.

DETAIL NO.
C-503
NTS

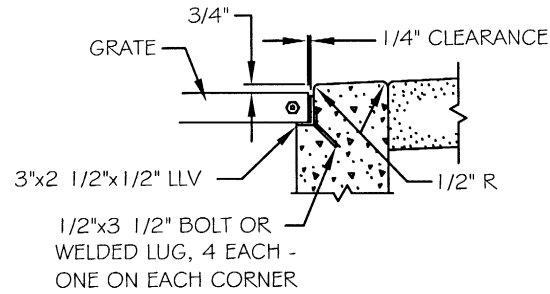
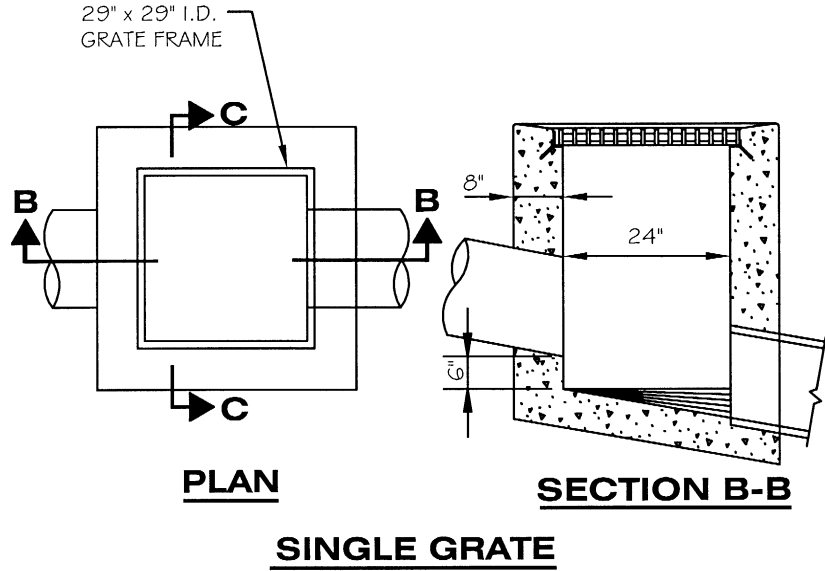


CITY OF
CHANDLER
STANDARD
DETAIL

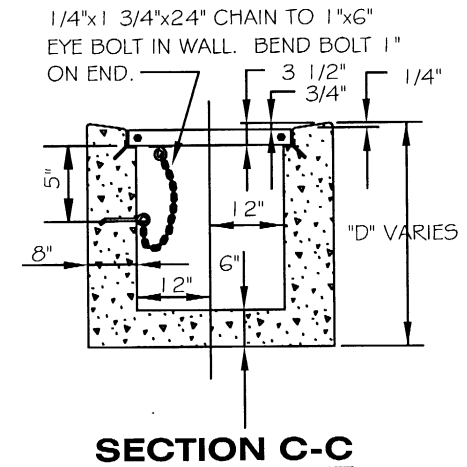
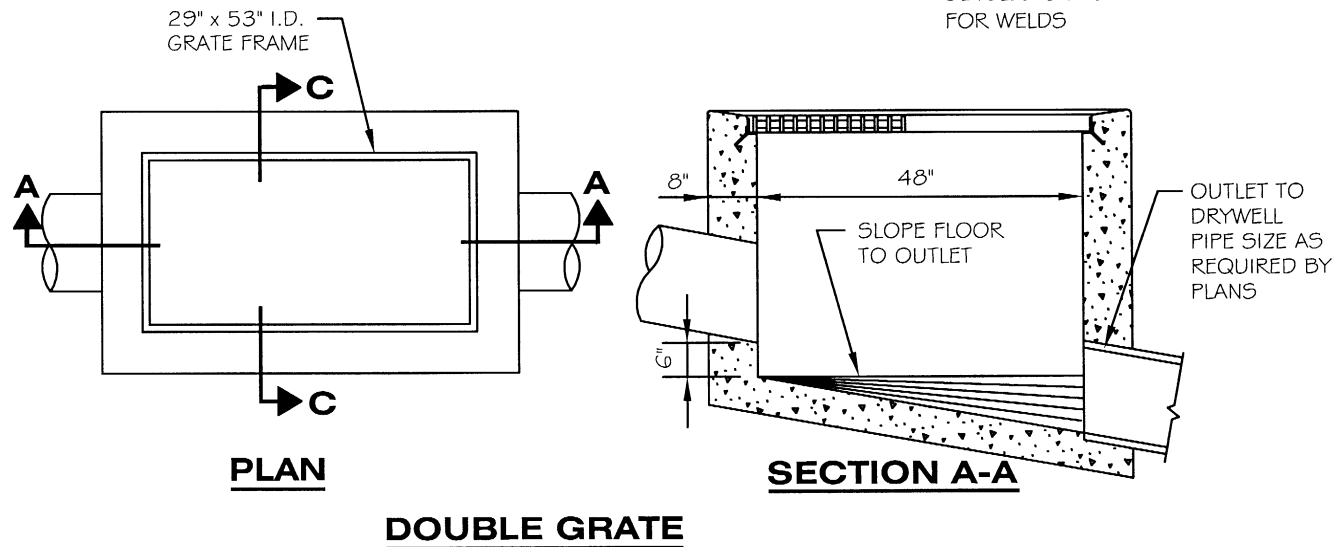
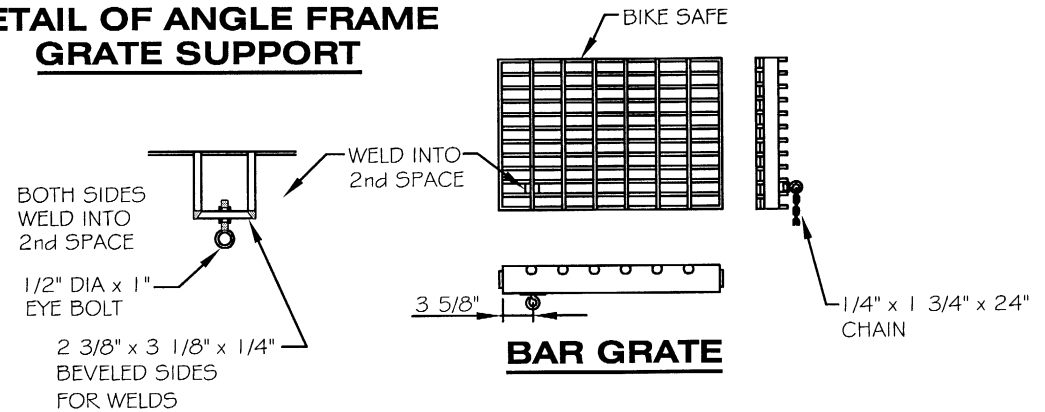
TRASH RACK/ACCESS BARRIER

APPROVED: *Bryan D. Dutton*
CITY ENGINEER
DATE: *11-19-99*

DETAIL NO.
C-503
NTS



ALL CONCRETE SHALL BE CLASS 'A' PER MAG SECT. 725. EXPOSED EDGES SHALL BE FINISHED WITH A 1/2" RADIUS. REINFORCE WITH #4 AT 8" EACH WAY, CENTERED.



DETAIL NO.
C-504
NTS

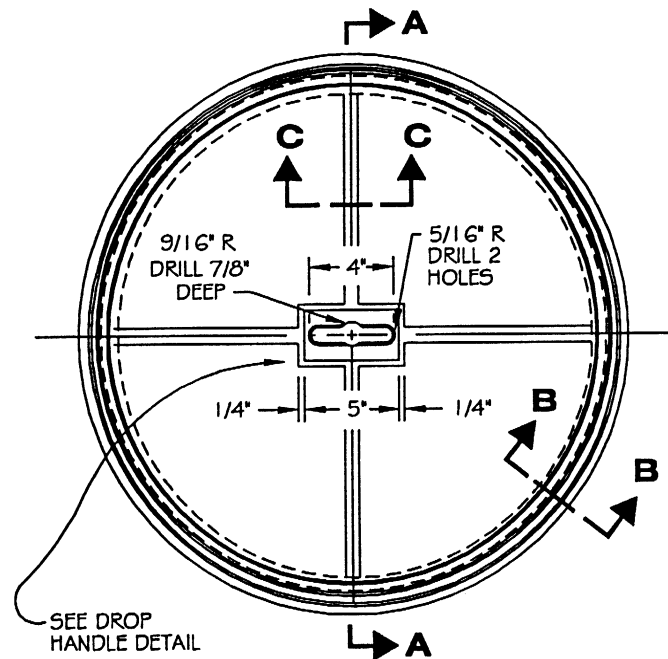


CITY OF
CHANDLER
STANDARD
DETAIL

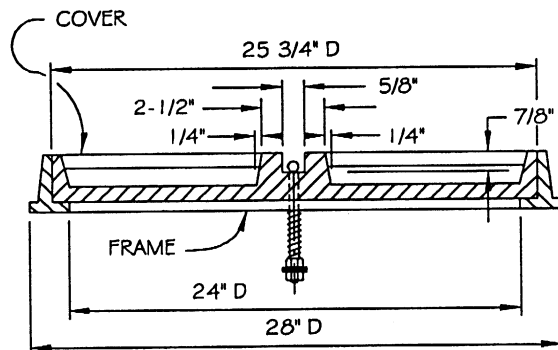
RETENTION BASIN INLET

APPROVED: *Elizabeth M. Huns*
CITY ENGINEER
DATE: *January 11, 2002*

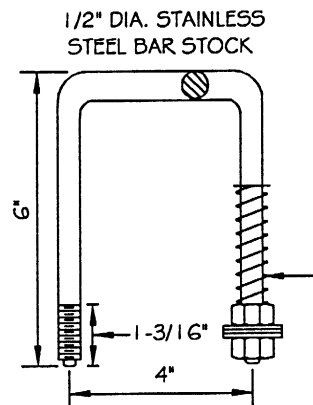
DETAIL NO.
C-504
NTS



PLAN VIEW



SECTION A-A



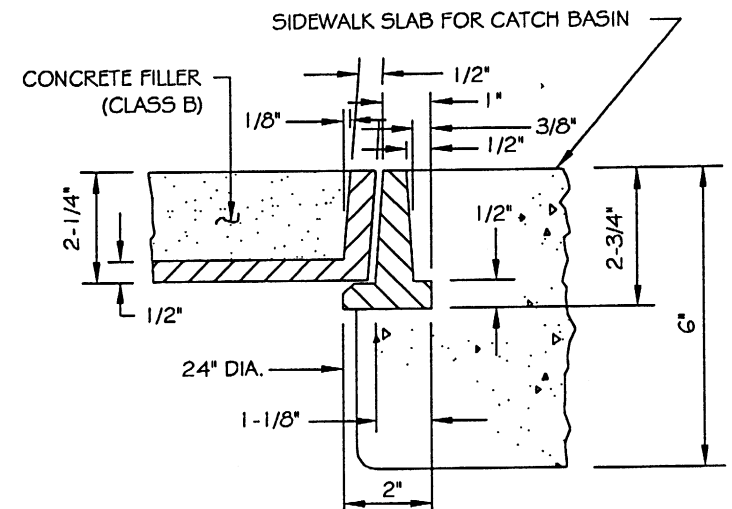
DROP HANDLE

FURNISH FOR EACH SIDE OF HANDLE:

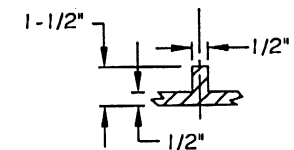
- 1 EA. 304-S.STL. SPRING 2-1/2 X 1 7/32 I.D. X 3/32
- 2 EA. 1/2" HEX NUT
- 3 EA. 1/2" FLAT WASHER
- 1 EA. 1/2" LOCK WASHER

NOTES:

1. FRAME SHALL BE NON-LOCKING.
2. FRAME AND COVER SHALL BE CAST IRON OR ASTM A-36 STRL. HORIZONTAL SURFACE OF COVER IN CONTACT WITH FRAME SHALL BE MACHINED, ASA B-46 ROUGHNESS SHALL NOT EXCEED 1/32 INCH.
3. COVER SHALL BE FILLED WITH CONCRETE AND BROOM FINISHED.
4. SMALL VARIATIONS IN DIMENSIONS OF FEATURES OF A MINOR NATURE THAT ARE PART OF THE FOUNDRY'S CASTING ARE PERMISSIBLE.



SECTION B-B



SECTION C-C

C-505
REPLACES
117



CITY OF
CHANDLER
STANDARD
DETAIL

**CATCH BASIN ACCESS
FRAME AND COVER**

APPROVED:

DATE:

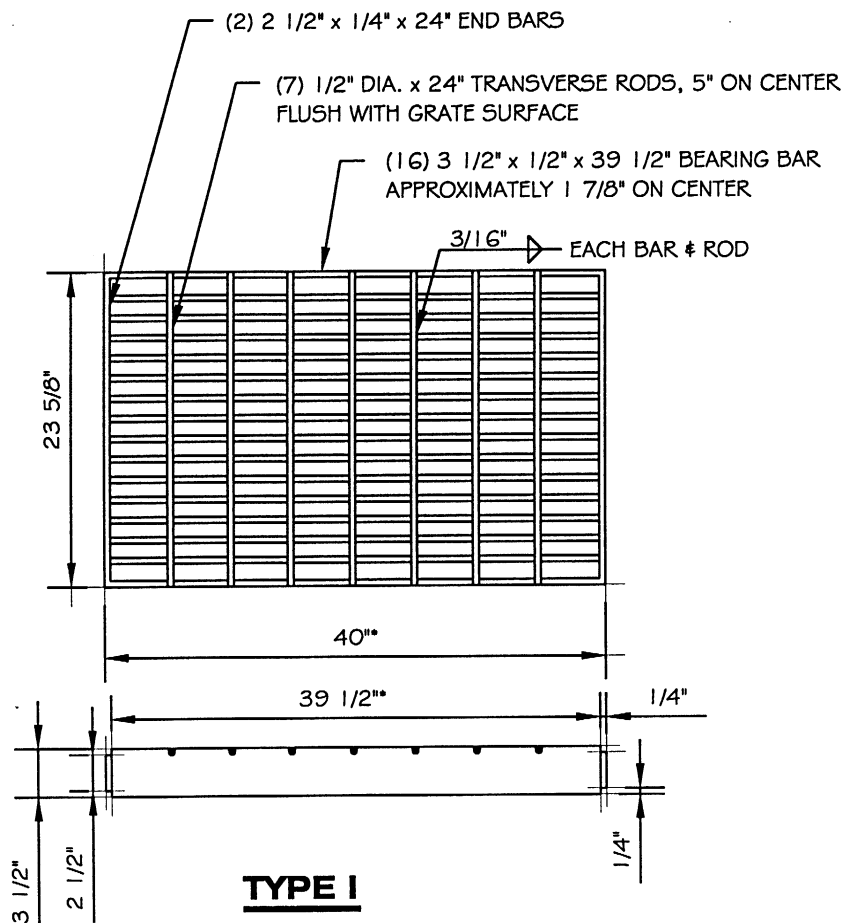
[Signature]
CITY ENGINEER

11-19-99

DETAIL NO.

C-505

NTS



* DIMENSION WILL VARY DEPENDING UPON
CATCH BASIN PIPE SIZE.

NOTES:

1. ALL STEEL SHALL BE IN ACCORDANCE WITH ASTM A-36.
2. WELDING SHALL BE IN ACCORDANCE WITH AWS SPECIFICATIONS.
3. FRAME AND GRATE SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY.
4. THE COMPLETED ASSEMBLY SHALL BE GIVEN ONE SHOP COAT OF NO. 1 PAINT AND TWO FIELD COATS OF NO. 10 PAINT AS PER MAG SECTION 790.
5. THE GRATE SHALL BE FABRICATED TO WITHIN 1/8" OF SPECIFIED DIMENSIONS.

DETAIL NO.
C-506
NTS



CITY OF
CHANDLER
STANDARD
DETAIL

CATCH BASIN GRATES

APPROVED:

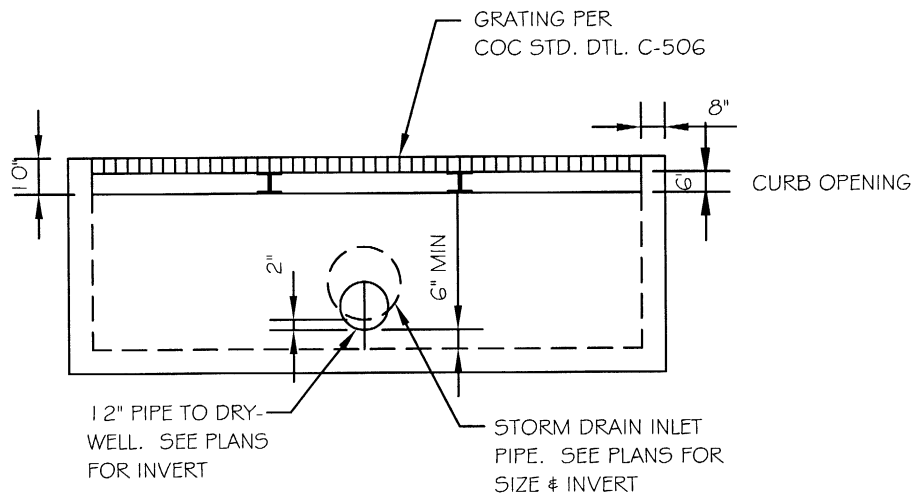
Boyd A. Patterson
CITY ENGINEER

DATE:

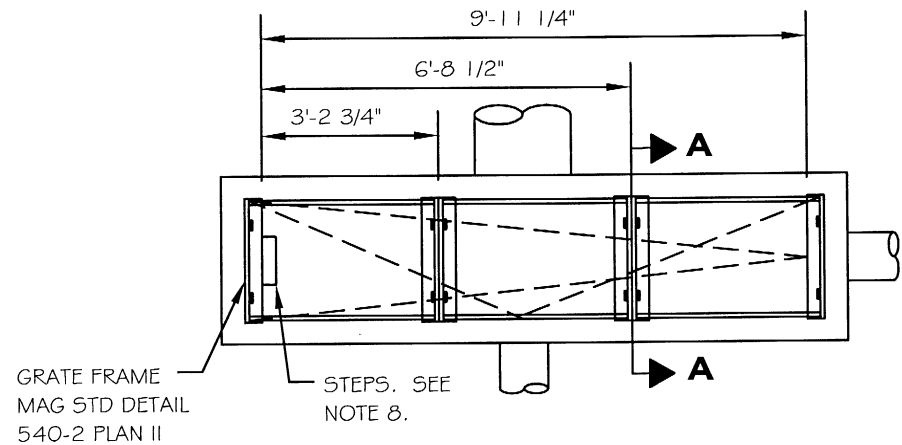
11-19-99

DETAIL NO.

C-506
NTS



FRONT ELEVATION



TRIPLE CATCH BASIN

NOTES:

1. ALL CONCRETE SHALL BE M.A.G. CLASS 'A'.
2. CONNECTOR PIPES MAY BE PLACED IN ANY WALL AS PER PLAN.
3. FLOOR BASIN SHALL BE TROWELLED TO A HARD, SMOOTH SURFACE AND SHALL SLOPE FROM ALL DIRECTIONS TO OUTLET.
4. CONNECTOR PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.
5. PLANS SHOULD SPECIFY GRATE ELEVATION AND INVERT ELEVATION.
6. RETENTION BASIN INLET MAY BE PREFABRICATED PROVIDING A SHOP DRAWING IS APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
7. THE FRAME SHALL BE MAG STD DETAIL 540-2, PLAN II, GRATE PER CHANDLER DET. #C-506.

DETAIL NO.
C-507
NTS

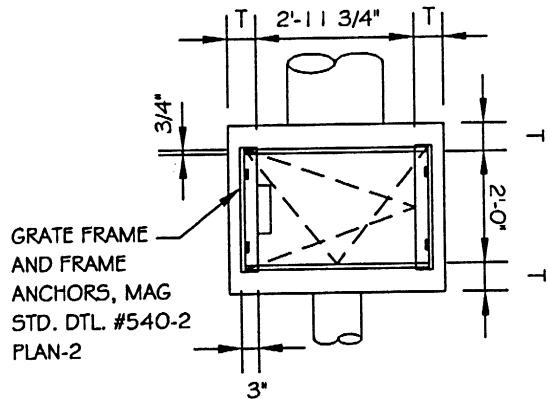


CITY OF
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STANDARD
DETAIL

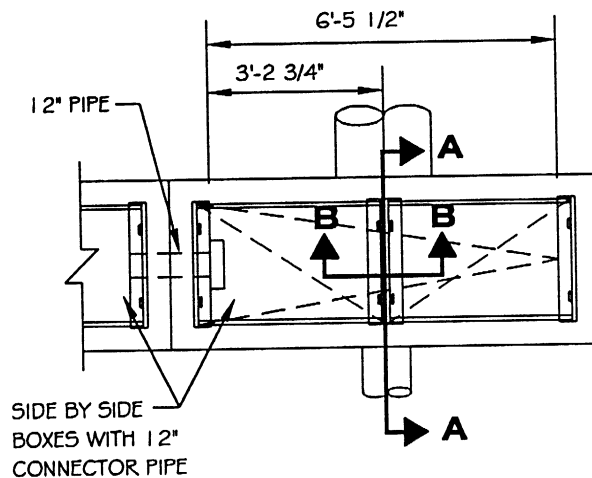
**BELOW GRADE RETENTION BASIN
INLET (BUBBLER BOX)**

APPROVED *Elizabeth W. Hens*
CITY ENGINEER
DATE: *January 21, 2002*

DETAIL NO.
C-507
PAGE 1 OF 3



SINGLE CATCH BASIN



DOUBLE CATCH BASIN

NOTES: (CON'T)

8. STEPS (MAG DET. 428 POLYPROPYLENE)
V = 3' (INCL) PLACE ONE STEP 12" ABOVE
THE FLOOR OF THE BASIN. V OVER 3',
PLACE STEPS AT 12" INTERVALS FROM
THE FLOOR OF THE BASIN WITH THE TOP
STEP AT 12" (MIN) BELOW THE TOP OF GRATE.
9. ALL EXPOSED METAL HARDWARE SHALL BE
GIVEN ONE SHOP COAT OF NO. 1 PAINT AND
2 FIELD COATS OF NO. 10 PAINT AS PER
M.A.G. SECTION 790.
10. ALL METAL UNITS SHALL BE FABRICATED
FROM STRUCTURAL STEEL EXCEPT AS NOTED.
STRUCTURAL STEEL SHALL BE IN ACCORDANCE
WITH ASTM A-36.
11. WELDING SHALL BE IN ACCORDANCE WITH
MAG WELDING SPECIFICATIONS.

DETAIL NO.
C-507
NTS



CITY OF
CHANDLER
STANDARD
DETAIL

**BELOW GRADE RETENTION BASIN
INLET (BUBBLER BOX)**

APPROVED:

DATE: 11-19-97

CITY ENGINEER

DETAIL NO.

C-507

PAGE 2 OF 3

CONTINUOUS CURB OPENING
SEE DETAIL THIS SHEET

GRATE SUPPORT FOR
DOUBLE & TRIPLE ONLY.
SEE SECTION B-B

LOOSE RIP-RAP
(D50=9") 18" DEEP x
5' WIDE COLLAR
AROUND STRUCTURE

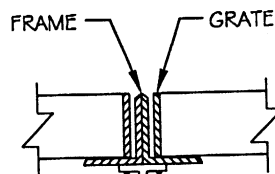
FINISHED GRADE

12" Ø PIPE TO
DRYWELL. SEE
PLANS FOR INVERT

F.G @ 4:1
MAX

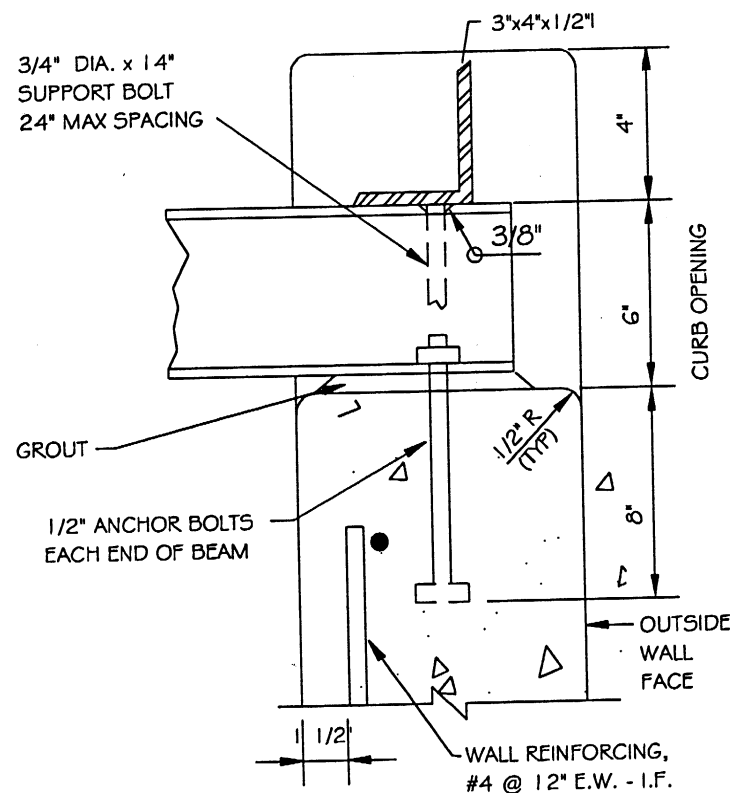
STORM DRAIN
INLET PIPE. SEE
PLANS FOR SIZE
& INVERT

SECTION A-A



5 W 18.5
L = 2'9 1/2"

SECTION B-B



INLET CURB OPENING

CATCH BASIN WALL THICKNESS

T = 8" IF V IS UP TO 8'
(IF V EXCEEDS 8', SPECIAL DESIGN IS REQUIRED)
V = 3'-0" UNLESS OTHERWISE NOTED

DETAIL NO.
C-507
NTS



CITY OF
CHANDLER
STANDARD
DETAIL

BELOW GRADE RETENTION BASIN INLET (BUBBLER BOX)

APPROVED:

DATE:

Barry D. Patterson
CITY ENGINEER

11-19-99

DETAIL NO.

C-507

PAGE 3 OF 3